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Abstract:

This project uses evidence-based theoretical and empirical research to examine comprehensive micro-data on 21st century insurgency and counterinsurgency in the Philippines. We report several empirical findings: insurgent violence increases after narrow incumbent victories, when the value of a major export crop increases, when investment in an area increases, after a bad harvest or lagged rainfall, and upon announcement of a development project. Increase in conflict among one rebel group increases conflict with others. In the area of counterinsurgency, one very successful program increased violence temporarily, but progressively reduced child malnutrition for years afterward. Unfortunately, much of that gain was lost when malnutrition increased in neighboring regions --where displaced rebels were presumably displaced to. In addition, conditional cash transfers reduce rebel violence in rebel-influenced space. High quality, semi-autonomous military units with a combination of superior leadership, intensive training and relevant doctrine are more effective at combating insurgency across a wide variety of conditions and under various measures. Intelligence and access to local information are also associated with more effective counterinsurgency outcomes at the operational incident level. In the area of land reform, counterinsurgencies are less likely to succeed when distributive conflicts are at the core of the political dispute. In addition, land reforms are most likely to prove stabilizing in those cases where elites have diverse assets outside of the agricultural sector.

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TECHNICAL REPORT

Summary

Our team has unique access to comprehensive micro-data on 21st century insurgency and counterinsurgency outcomes in the Philippines. This project uses evidence-based theoretical and empirical research to examine the data in the following three projects.

Project A: Counterinsurgency and Well Being

Project B: The Micro-Foundations of Insurgent Surrender

Project C: Sources of Military Effectiveness in Counterinsurgency

Examining the data allow us to formally model hypotheses, generate testable implications, and test those implications using data from Philippine insurgency. In each of the three projects, the data has been compiled, organized, coded, and analyzed. Manuscripts, working papers, and publications have resulted from the data. Findings are discussed below.

Investigators

Principal Investigator **Ethan Kapstein**, Arizona Centennial Professor of International Affairs, Arizona State University, and Senior Director for Research and Decision Analysis of ASU's McCain Institute for International Leadership.

Co-Principal Investigator **Eli Berman**, Professor of Economics, University of California at San Diego, and Research Director for International Security Studies at the UC Institute on Global Conflict and Cooperation, as well as Research Associate at the National Bureau of Economic Research.

Subcontract Principal Investigator **James Fearon**, Theodore and Frances Geballe Professor in the School of Humanities and Sciences and Professor of Political Science, Stanford University.

Subcontract Co-Principal Investigator **Joseph Felter**, Senior Research Scholar, Stanford University's Center for International Security and Cooperation (CISAC) and Research Fellow at the Hoover Institution, and retired US Army Special Forces Colonel.

Project A: Counterinsurgency and Well Being

Background

In this project we examine the influence of state consolidation on economic and social outcomes in regions that have traditionally been beset by insurgent uprisings and violent conflict. It gets to the heart of one of the most crucial issues in political economy: the consolidation of state authority. While state authority is traditionally defined in terms of "monopoly power over the use of violence," that minimal conceptualization has been greatly extended by scholars (and, indeed, by citizens as well) with the evolution of state capacity and, in particular, with the expansion of the welfare state (Kapstein 1999). As Samuel Huntington (1968) famously put it, "The most important political distinction among countries concerns their...degree of government." This project seeks to understand how state consolidation takes place at ground level; this is groundbreaking in that most research of this type is "top-down," focusing on the interests and actions of state elites. Ours is "bottom-up," following on recent scholarship on the incentives of insurgents

(Collier and Hoeffler, 2004; Crost et al, 2013; Dube and Vargas, 2010). By examining the expansion of state authority, and its effects on economic and social outcomes, we gain a richer understanding of how state authority is extended to regions where it has been most conflicted.

Policy Implications

Much of the debate associated with counterinsurgency efforts by US forces and our allies over the past decade can be couched in terms of quantifiable benefits. The Afghan government, for instance, constantly expresses reservations over the costs of the US counterinsurgency presence in civilian casualties. In neither Afghanistan nor Iraq has the US been able to quantify the improvement in human wellbeing at a local level associated with control of territory by state forces, as opposed to those of insurgents. In fact, we know of no such analysis at the local level for any modern counterinsurgency.

Firm quantitative estimates of how much local communities ultimately benefit from state control are a necessary component of any cost-benefit analysis of current or future engagements in poorly controlled spaces, be they by our local allies or by the US military. In the long term, those estimates allow us to understand whether the tax revenue associated with increased activity in these areas will allow local allies to sustainably maintain state presence in the absence of US or other international support. Critically, the effects of modern counterinsurgency operations on the local population are generally absent, leaving policymakers to make decisions with very little applicable evidence.

Methods, Assumptions, and Procedures

Due to a shared interest in understanding the social effects of military operations, the Peace and Development Center of the Armed Forces of the Philippines shared with us a unique dataset on the location and duration of efforts to clear, hold and build in peripheral areas of the country. We match the data to social outcome measures and information about violence in order to analyze both the selection of regions for counterinsurgency effort and the ultimate effects of those efforts on social and economic outcomes.

The first phase of analysis required data cleaning, recoding and repeat entry. In the second phase of analysis, we modeled the selection of regions of emphasis. Insurgents have been active in many parts of the Philippines over the sample period (2002–2010), and our previous research indicated that both violence and economic activity attracts counterinsurgency efforts by the Philippine military. That analysis developed an optimizing model for force deployment building on Berman et al (2011, 2013) and tested its' implications using these spatial data using econometric analysis applied to these panel data.

A third phase of analysis focused on answering our central question: how do counterinsurgency efforts affect human wellbeing at the local level? The motivating theory of state consolidation holds that nation-states are the efficient providers of local public goods (security, health, education, environmental protection, welfare services, representation, etc.) so that expansion of state authority should increase economic activity and wellbeing. We gather several measures, including investment data and nutritional status of children, and used them to estimate empirically the effect of Peace and Development Team introduction and continued presence in Philippine municipalities. We then employ an econometric analysis of panel data.

Results and Discussion

In the following section we list the papers that have resulted from the econometric modeling and data analysis of Philippine Peace and Development Team operations, and the key findings of each paper.

1. Berman, Eli, Mitch Downey, and Joseph Felter, “Expanding Governance as Development: Evidence on Child Nutrition in the Philippines,” NBER Working Paper No. 21849, 2016. Currently Under Review. <http://www.nber.org/papers/w21849>
 - Key Finding: The Peace and Development Team counterinsurgency program temporarily increased violence, but progressively reduced child malnutrition by 10% in the first year and by 30% from year three onwards.
 - Description: Worldwide, extreme poverty is often concentrated in spaces where people and property are not safe enough to sustain effective markets, and where development assistance is dangerous – and might even induce violence. Expanding governance by coercively taking control of territory may enable markets and development programs, but costs to local residents may exceed benefits, especially if that expansion is violent. We estimate for the first time whether a large counterinsurgency program improves welfare. We exploit the staggered roll-out of the Philippine “Peace and Development Teams” counterinsurgency program, which treated 12% of the population between 2002 and 2010. Though treatment temporarily increased violence, the program progressively reduced child malnutrition: by 10% in the first year, and by 30% from year three onwards. Improved nutritional status was not due to increased health and welfare expenditures, but instead to improved governance. Treatment effects are comparable to those of conventional child health interventions, though conventional programs are likely infeasible in this setting. Rebels apparently react to treatment by shifting to neighboring municipalities, as malnutrition worsens there – with statistically significant ‘treatment’ effects of similar size. Thus overall program effects are close to zero. These findings invite an evidence-based discussion of governance expansion, an extensive margin of development.
2. Berman, Eli, Joseph Felter, Ethan Kapstein, and Erin Troland, “Predation, Taxation, Investment and Violence: Evidence from the Philippines,” NBER Working Paper No. 19266, 2013. <http://www.nber.org/papers/w19266>
 - Key Finding: Increases in investment are positively correlated with both rebel and government initiated violence.
 - Description: This paper explores the relationship between investment and political violence through several possible mechanisms. Investment as a predictor of future violence implies that low private sector investment today provides a robust indicator of high violence tomorrow. “Rent-capture” or predation asserts that investment increases violence by motivating extortion by insurgents. A “hearts and minds” approach links investment to political violence in two possible ways: through an opportunity cost mechanism by which improved economic conditions raise the cost of rebel recruitment; and through a psychological “gratitude” effect which reduces cooperation of

noncombatants with rebels. Finally, tax capture implies that government will increase coercive enforcement in an attempt to control areas where increased investment increases tax revenue. We lay out these mechanisms in a framework with strategic interaction between rebels, communities, government and firms within an information-centric or "hearts and minds" counterinsurgency model. We test these mechanisms in the context of the Philippines in the first decade of this century, using information on violent incidents initiated by both rebels and government and new data on industrial building permits, an indicator of economic investment. Increases in investment are positively correlated with both rebel and government initiated violence. In the context of our theory that constitutes unequivocal evidence of predation, is consistent with tax capture, and weighs against predictive investment, opportunity costs or gratitude being a dominant effect.

3. Berman, Eli and Aila Matanock, "The Empiricists' Insurgency," *Annual Review of Political Science*, 18(May): 443-464, 2015.

- Key Finding: The design of interventions, including governance improvement, development programs, and rules of engagement, matter depending on the type of insurgency.
- Description: Research on insurgency has been invigorated during this past decade by better data, improved methods, and the urgency of understanding active engagements in Iraq and Afghanistan. This "empiricists' insurgency" reinforces a classic literature on the essential role of civilians while challenging older theories about how they affect conflict outcomes. It provides a general framework describing "irregular" insurgencies (where government capacity exceeds rebel capacity), which is analytically cohesive and empirically tested using subnational data from multiple conflicts. The new research provides guidance on intervention design, including governance improvement, development programs, and rules of engagement. The design of interventions matters: Some key evidence comes from measuring the effects of misguided policies. The framework may enable better conceived and implemented interventions, including foreign engagements with and without troop deployment, depending on the type of insurgency and mindful of political limitations. We position these findings in the literature and highlight directions for future research, including legal aspects of countering insurgency.

4. Crost, Benjamin, Claire Duquennois, Joseph Felter, and Daniel Rees, "Climate Change, Agricultural Production and Civil Conflict: Evidence from the Philippines," Institute for the Study of Labor (IZA) Discussion Paper No. 8965, 2015. Currently Under Review.

<http://ftp.iza.org/dp8965.pdf>

- Key Finding: Rebel groups gain strength after a bad harvest, and lagged rainfall affects the number of violent incidents initiated by insurgents but not the number of incidents initiated by government forces.
- Description: Climate change is predicted to affect global rainfall patterns, but there is mixed evidence with regard to the effect of rainfall on civil conflict. Even among researchers who argue that rainfall reduces civil conflict, there is disagreement as to the

underlying mechanism. Using data from the Philippines for the period 2001-2009, we exploit seasonal variation in the relationship between rainfall and agricultural production to explore the connection between rainfall and civil conflict. In the Philippines, above-average rainfall during the wet season is harmful to agricultural production, while above-average rainfall during the dry season is beneficial. We show that the relationship between rainfall and civil conflict also exhibits seasonality, but in the opposite direction and with a one-year lag. Consistent with the hypothesis that rebel groups gain strength after a bad harvest, there is evidence that lagged rainfall affects the number of violent incidents initiated by insurgents but not the number of incidents initiated by government forces. Our results suggest that policies aimed at mitigating the effect of climate change on agricultural production could weaken the link between climate change and civil conflict.

5. Crost, Benjamin and Joseph Felter, "Is Conflict Contagious? Evidence from a Natural Experiment," Households in Conflict Network (HiCN) Working Paper No. 197, 2015. Submitted to *Journal of Conflict Resolution*. <http://www.hicn.org/wordpress/wp-content/uploads/2012/06/HiCN-WP-197.pdf>
 - Key Finding: An increase in conflict among one rebel group increases conflict with others.
 - Description: The fact that conflicts tend to cluster in space is well documented. It remains unclear, however, whether this clustering is a result of contagion or of unobserved shocks that are correlated across space. We present new evidence for contagion by exploiting a natural experiment that increased the intensity of one conflict but had no direct effect on a second ongoing conflict in the same area. In particular, we analyze a ruling by the Supreme Court of the Philippines, which disallowed a proposed peace treaty with the Moro-Islamic Liberation Front (MILF), a Muslim separatist insurgency, and led to an escalation of conflict with the MILF in provinces with a large Muslim population. Though the ruling had no direct bearing on the conflict with the New People's Army (NPA), a communist guerrilla group, we find that it also led to a substantial increase in conflict with the NPA in the same provinces. We test several mechanisms and conclude that contagion was most likely the result of strategic escalation by the NPA in an attempt to exploit the local weakness of the armed forces.
6. Crost, Benjamin, Joseph Felter, and Patrick Johnston, "Aid under Fire: Development Projects and Civil Conflict," *American Economic Review*, 104(6): 1833-1856, 2014.
 - Key Finding: A development project induces increased political violence, on announcement, in rebel influenced space.
 - Description: We estimate the causal effect of a large development program on conflict in the Philippines through a regression discontinuity design that exploits an arbitrary poverty threshold used to assign eligibility for the program. We find that barely eligible municipalities experienced a large increase in conflict casualties compared to barely ineligible ones. This increase is mostly due to insurgent-initiated incidents in the early stages of program preparation. Our results are consistent with the hypothesis that

insurgents try to sabotage the program because its success would weaken their support in the population.

7. Crost, Benjamin, Joseph Felter, and Patrick Johnston, "Conditional Cash Transfers and Civil Conflict, and Insurgent Influence: Experimental Evidence from the Philippines," *Journal of Development Economics*, 118(January): 171-182, 2016.
 - Key Finding: Conditional cash transfers reduce rebel violence, in rebel influenced space.
 - Description: Conditional cash transfer (CCT) programs are an increasingly popular tool for reducing poverty in conflict-affected areas. Despite their growing popularity, there is limited evidence on how CCT programs affect conflict and theoretical predictions are ambiguous. We estimate the effect of conditional cash transfers on civil conflict in the Philippines by exploiting an experiment that randomly assigned eligibility for a CCT program at the village level. We find that cash transfers caused a substantial decrease in conflict-related incidents in treatment villages relative to control villages in the first nine months of the program. Using unique data on local insurgent influence, we also find that the program significantly reduced insurgent influence in treated villages.
8. Crost, Benjamin, Joseph Felter, Hani Mansour, and Daniel Rees, "Election Fraud and Post-Election Conflict: Evidence from the Philippines," Institute for the Study of Labor (IZA) Discussion Paper No. 7469, 2013. Currently Under Review at *American Journal of Political Science*. http://www.iza.org/en/webcontent/publications/papers/viewAbstract?dp_id=7469
 - Key Finding: Narrow incumbent victories, presumably due to fraud, predict violence.
 - Description: Previous studies have documented a positive association between election fraud and the intensity of civil conflict. It is not clear, however, whether this association is causal or due to unobserved institutional or cultural factors. This paper examines the relationship between election fraud and post-election violence in the 2007 Philippine mayoral elections. Using the density test developed by McCrary (2008), we find evidence that incumbents were able to win tightly contested elections through fraud. In addition, we show that narrow incumbent victories were associated with an increase in post-election casualties, which is consistent with the hypothesis that election fraud causes conflict. We conduct several robustness tests and find no evidence that incumbent victories increased violence for reasons unrelated to fraud.
9. Felter, Joseph and Benjamin Crost, "Export Crops and Civil Conflict," Empirical Studies of Conflict (ESOC) Working Paper #4, 2016. Currently Under Review at *Journal of Political Economy*. <https://esoc.princeton.edu/wp4>
 - Key Finding: Increases in the value of a major export crop exacerbate conflict violence in the Philippines.
 - Description: Many governments and international experts consider a move towards high-value export crops, such as fruits and vegetables, as an important opportunity for economic growth and poverty reduction. Little is known, however, about the effects of export crops in fragile and conflict-affected countries. We exploit movements in world market prices combined with geographic variation in crop intensity to provide evidence

that increases in the value of a major export crop exacerbate conflict violence in the Philippines. We further show that this effect is concentrated in areas with low baseline insurgent control. In areas with high insurgent control, a rise in crop value leads to a decrease in violence but a further expansion of rebel-controlled territory. These results are consistent with the hypothesis that insurgents gain strength from extorting agricultural exporters and that insurgent strength has a non-monotonic effect on conflict violence because strong insurgent groups can establish local monopolies of violence.

10. Kapstein, Ethan, "Foreign Aid and Counterinsurgency Policy: Lessons from Land Reform," Center for Global Development (CGD) Working Paper No. 349, 2013.
<http://www.cgdev.org/publication/foreign-aid-and-counterinsurgency-policy-lessons-land-reform-working-paper-349>
 - **Key Finding:** When land is the major asset of the elites, they will fight hard to prevent its redistribution from taking place. Counterinsurgencies are less likely to succeed when distributive conflicts are at the core of the political dispute.
 - **Description:** Can the United States actually coerce or encourage violence-reducing changes? Answering that question requires, at a minimum, a theory of what is causing the violence to begin with, along with a theory of how to end it. This paper explores these questions from an historical perspective.
11. Kapstein, Ethan, "Land and Rebellion: Lessons for Counter-insurgency," *Survival: Global Politics and Strategy*, 56(2): 109-128, 2014.
 - **Key Finding:** Where redistributive demands are at the core of a rebellion, foreign powers will find it difficult to respond effectively.
 - **Description:** Historical study of the role of imposed land reform in US COIN successes in 20th century. Land reform illuminates the paradox of economic instruments in counter-insurgency.
12. Kapstein, Ethan, *The Seeds of Stability: Land and Developing World Conflict in U.S. Foreign Policy*, Cambridge, UK: Cambridge University Press, forthcoming.
 - **Key Finding:** During and since the Cold War the United States has promoted economic reform in the developing world as a means to political stability. This book examines U.S. efforts to promote land reform in particular, and it finds that these reforms were most likely to prove stabilizing in those cases where elites had diverse assets outside of the agricultural sector. In such cases, the US could provide elites with incentives to invest in newly emerging sectors, providing jobs and opportunities for workers who might otherwise join rural insurgencies.
 - **Description:** This book consists of two theoretical chapters, several case studies drawn from East Asia (including the Philippines), Latin America, and the Middle East, and policy conclusions.

Project B: The Micro-Foundations of Insurgent Surrender

Background

Any comprehensive strategy to limit the damage of rebellion and ultimately end civil wars must diminish the supply of active rebels, either through attrition or voluntary surrender. Individuals join, fight and leave rebel groups for reasons reflecting both group and individual preferences. Rebels' intrinsic motives interact with multiple exogenous factors related to the environment where they operate, including economic opportunities and other incentives. Scholars have paid far more attention to explaining recruitment into armed groups and to the factors and conditions responsible for the onset and duration of rebel violence than they have to understanding the micro-foundations of surrender. The Philippine setting and data allow us to answer several key questions: Who surrenders in civil wars and why? Where and under what conditions are rebels with varied motives, hardship thresholds and commitment levels more likely to surrender?

Policy Implications

Recent US experiences in Iraq and the ongoing protracted conflict in Afghanistan emphasize the importance of facilitating the surrender of belligerents, whether through attractive or coercive means. This project informs our understanding of the micro-foundations of surrender in insurgency and civil wars, an understanding which should be relevant to current and future insurgencies, such as those in Afghanistan, Syria, Pakistan, and Yemen.

Winnowing down the number of insurgents and other belligerents who remain committed to violent resistance is a key objective for states confronting internal threats of insurgency and civil war. Attrition can be achieved by identifying those belligerents that can be reconciled, and incentivizing their surrender by creating conditions and opportunities most likely to move them to lay down their arms and return to the fold of the law.

The dearth of micro-data available to scholars on individual cases of surrender across a diverse population of belligerents makes it difficult to rigorously test theories of rebel surrender. This project compiles some of the most detailed individual level data on a sizable population of surrendered rebels available to date and provides a unique opportunity to empirically test policy relevant theories of rebel surrender.

Furthermore, these data cover multiple cases of conflict under various conditions, ranging from Islamic separatists waging an historic struggle for an independent Muslim state, to violent Marxist political operatives ostensibly fighting to overthrow the government and replace it with a communist system, to murderous extortionists with weak political motivations. Significant variation in motives, socio-economic, demographic and other characteristics across individual rebels and within rebel groups over time increases the likelihood that the findings from this analysis can be generalized and help inform policy across a broad range of theaters and cases.

Methods, Assumptions, and Procedures

We address these important questions through individual level analysis of the characteristics and surrender patterns of over 13,000 rebel surrenders from multiple insurgent groups operating in the Philippines over twenty-five years (1986-2011). Base data for this analysis was coded using already anonymized 'exit interviews' of Communist revolutionaries and Islamic separatist rebels who voluntarily surrendered. A working panel data set was compiled, including key demographic, socio-economic, and other characteristics of individual surrendered rebels. These include age, place of birth, education level, civilian occupation, date joined rebels, reasons

joined, position in rebel movement, date surrendered, place surrendered, and importantly: reasons for surrendering.

Results and Discussion

We compiled and organized a comprehensive 24 year data set on characteristics and motivations of 13,000 individual surrendered rebels from multiple insurgent groups. In addition, drafting the manuscript “Bringing Guns to a Knife Fight” is ongoing. It presents a theory and multiple hypotheses explaining the dynamics and patterns of rebel surrender in civil war. It includes empirical tests of the theory using this unique data set, along with qualitative evidence presented in case studies drawing from the detailed interviews of former rebels, military commanders and government officials. A draft working paper provides empirical and qualitative evidence explaining rebel surrender as a function of hardship and commitment interacted with opportunity for surrender.

Project C: Sources of Military Effectiveness in Counterinsurgency

Background

What determines military effectiveness in a developing country context? In the context of interstate wars, realist theories posit that a state’s capacity to raise and employ military forces able to carry out conventional operations against external threats is well predicted by economic power --aggregate wealth and resources. Under these conditions, selection effects within the anarchic international system will theoretically drive states to field the best military forces possible given their available resources in order to survive and prevail relative to their peers. The effectiveness of forces employed to combat insurgent threats, however, are more difficult to predict and relies on far less developed theories. Realistic assessments of a state’s conventional military capabilities focusing on material advantages do not readily translate into explaining its expected capacity to address the complex nature of threats posed by insurgency where the enemy often operates, recruits, and competes with the state from within its own population.

Policy Implications

As the US draws down its’ troop presence in Afghanistan it returns to a pre-9/11 stature in many conflict zones, advising and assisting local counterinsurgency and counterterrorism operations with no active troops on the ground. In that context the ability to advise and supply local allied forces so that they will be effective becomes critical, especially in a post-9/11 world in which territory controlled by insurgents can be used to harbor and train terrorists. As such, lessons on how to make local counterinsurgents effective are relevant not only to the Philippines, but to US efforts to support allies in current and future conflicts in Asia, Africa and Latin America, including Afghanistan, Pakistan, Libya, Egypt, Palestine and Somalia.

Methods, Assumptions, and Procedures

This project examines the theoretical and empirical limitations that challenge our understanding of the degree to which some military units succeed and others fail to support broader government efforts to combat insurgency. We develop a bottom up theory of military effectiveness in counterinsurgency that emphasizes the significance of factors internal to states’ security forces. We argue that amid the varied and uncertain local environments in which insurgencies thrive, the overall effectiveness of the military forces employed to conduct counterinsurgency depends

largely on the intrinsic qualities and deployment decisions of the small units conducting these complex operations.

The qualities that predict strong performance at this level and aggregate up to effectively supporting broader and more comprehensive counterinsurgency across a spectrum of threat conditions vary along several key dimensions. Effective units will possess: (1) superior small unit level leadership who can accurately assess and respond to ever changing local conditions; (2) troops with high quality training emphasizing readiness at the tactical level and (3) doctrine and command and control measures that permit rapid adaptation and innovation, and the application of flexible responses and tactics. Effectively employing these forces will insure they integrate quality intelligence and local information in order to discriminate and efficiently bring their capabilities to bear against insurgents. The testable implication of this argument is that certain types and configurations of security forces perform better and more efficiently under multiple measures of effectiveness and across varied local conditions and threat environments.

Anecdotal evidence tying military effectiveness in counterinsurgency to certain desirable qualities and characteristics of the soldiers and small unit leaders who actually deploy among the population and conduct operations is ubiquitous. Empirically rigorous testing of such explanations is scarce in the literature, however, as it requires detailed information on military units at the tactical level and data on the relative performance of these units in operations under varying threat conditions while holding other potential explanatory factors constant.

To address this limitation, Felter has developed an original micro-level dataset compiled from detailed descriptions of over twenty-one thousand individual conflict-related incidents reported by the Armed Forces of the Philippines (AFP) during counterinsurgency operations in their country from 2001 to 2010. The data are unprecedentedly rich; they capture wide variation in the qualities of the military forces deployed to conduct counterinsurgency, the characteristics of the rebels they confront, as well as the intensity of the threat environment and degree of government control where they operate. Significantly, country level variables shown in previous studies to influence military effectiveness in conventional settings such as culture, polity, and patterns of civil military operations and other environmental factors can be held constant.

Results and Discussion

We compiled and organized a comprehensive 37 year incident level data set that includes over 102,000 individually coded incidents. In the following section we list the papers that have resulted from the data analyzed, and the key findings of each paper.

1. Felter, Joseph, "Military Effectiveness in Counterinsurgency: Evidence from the Philippines," in Dani Reiter (ed.), *The Sword's Other Edge: Tradeoffs in Military Effectiveness*, Cambridge, UK: Cambridge University Press, conditional acceptance.
 - Key Finding and Description: High quality, semi-autonomous military units with a combination of superior leadership, intensive training and relevant doctrine are more effective at combating insurgency across a wide variety of conditions and under various measures. Intelligence and access to local information also are associated with more effective counterinsurgency outcomes at the operational incident level.
2. Felter, Joseph, Eli Berman, and Jacob Shapiro, *Big Data Small Wars*, Princeton, NJ: Princeton University Press, book manuscript under contract.

- Description: In recent decades, social scientists have begun to employ the rigorous research methods that used to be the province of the natural sciences. This evidence-based approach has revolutionized how academic work is judged, how policies are created and evaluated and, now, how war is viewed. At the forefront of this movement, the Empirical Studies of Conflict Project has developed a large body of evidence on conflict that enables a new perspective on the causes and effects of violence. The book develops lessons from the wave of quantitative empirical research on conflict over the last 15 years, including the Philippines. It synthesizes findings across more than 100 studies.
3. Kapstein, Ethan, "How to Do Intervention Without Blowing Stuff Up," *Foreign Policy* online, May 27, 2014.
http://www.foreignpolicy.com/articles/2014/05/27/how_to_do_intervention_without_blowing_stuff_up_cold_war
 - Description: What actions can the United States take short of going to war? Which levers in conflict-afflicted regions should be manipulated to shape outcomes more to Washington's liking? A strategy of non-kinetic intervention brings together the instruments of national power to promote more benign behavior among governments and non-state actors that threaten the United States.
 4. Kapstein, Ethan, "Success and Failure in Counterinsurgency Operations," *Journal of Cold War Studies*, 19(1): Winter 2016/2017 issue, forthcoming.
 - Key Finding: Elite economic structures are crucial to shaping the willingness of local allies to reform.
 - Description: This article, drawing on several case studies including the Philippines, provides a novel, structural theory of success and failure in counterinsurgencies.

Restatement of Results

Project A: Counterinsurgency and Well Being

- The Peace and Development Team counterinsurgency program temporarily increased violence, but progressively reduced child malnutrition by 10% in the first year and by 30% from year three onwards.
- Increases in investment are positively correlated with both rebel and government initiated violence.
- The design of interventions, including governance improvement, development programs, and rules of engagement, matter depending on the type of insurgency.
- Rebel groups gain strength after a bad harvest, and lagged rainfall affects the number of violent incidents initiated by insurgents but not the number of incidents initiated by government forces.
- An increase in conflict among one rebel group increases conflict with others.
- A development project induces increased political violence, on announcement, in rebel influenced space.
- Conditional cash transfers reduce rebel violence, in rebel influenced space.
- Narrow incumbent victories, presumably due to fraud, predict violence.

- Increases in the value of a major export crop exacerbate conflict violence in the Philippines.
- When land is the major asset of the elites, they will fight hard to prevent its redistribution from taking place. Counterinsurgencies are less likely to succeed when distributive conflicts are at the core of the political dispute.
- Where redistributive demands are at the core of a rebellion, foreign powers will find it difficult to respond effectively.
- Land reforms were most likely to prove stabilizing in those cases where elites had diverse assets outside of the agricultural sector. In such cases, the US could provide elites with incentives to invest in newly emerging sectors, providing jobs and opportunities for workers who might otherwise join rural insurgencies.

Project B: The Micro-Foundations of Insurgent Surrender

- Rebel surrender is a function of hardship and commitment interacted with opportunity for surrender.

Project C: Sources of Military Effectiveness in Counterinsurgency

- High quality, semi-autonomous military units with a combination of superior leadership, intensive training and relevant doctrine are more effective at combating insurgency across a wide variety of conditions and under various measures. Intelligence and access to local information also are associated with more effective counterinsurgency outcomes at the operational incident level.
- Elite economic structures are crucial to shaping the willingness of local allies to reform.

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APPENDIX A

Papers

The following research was directly supported by the data collection and in-country interviews conducted during ONR-funded trips to Philippines.

Berman, Eli, Mitch Downey, and Joseph Felter, "Expanding Governance as Development: Evidence on Child Nutrition in the Philippines," NBER Working Paper No. 21849, 2016. Currently Under Review. <http://www.nber.org/papers/w21849>

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Crost, Benjamin and Joseph Felter, "Is Conflict Contagious? Evidence from a Natural Experiment," Households in Conflict Network (HiCN) Working Paper No. 197, 2015. Submitted to *Journal of Conflict Resolution*. <http://www.hicn.org/wordpress/wp-content/uploads/2012/06/HiCN-WP-197.pdf>

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- Kapstein, Ethan, "Success and Failure in Counterinsurgency Operations," *Journal of Cold War Studies*, 19(1): Winter 2016/2017 issue, forthcoming.
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